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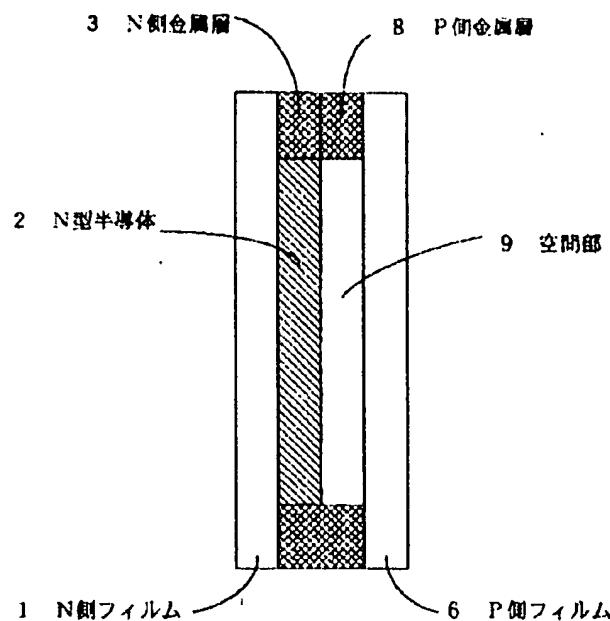
APPLICATION DATE : 12-12-01  
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TITLE : THERMOELECTRIC CONVERTING MODULE AND THERMOELECTRIC CONVERTING DEVICE USING THE SAME



ABSTRACT : PROBLEM TO BE SOLVED: To obtain a thin-film type thermoelectric converting module which has nearly the same thermoelectric conversion performance as that of a bulk type and also has high productivity.

SOLUTION: The thermoelectric converting module is constituted by arranging P-type semiconductors and N-type semiconductors alternately on a substrate and connecting the P-type and N-type semiconductors in series by metal layers, and the substrate is formed of two flexible insulating films; and a thermoelectric converting element composed of a P-side terminal, a P-side metal layer 8, and a P-type semiconductor is bonded to one film to obtain a P-side film 6 and a thermoelectric converting element composed of an N-side terminal, an N-side metal layer, and the N-type semiconductor 2 is bonded to the other film to obtain an N-side film 1. The P-type film and N-type films are put face-to-face to form a pair of modules and the terminal parts and metal layer parts of the both are brought into electric contact with each other to form a series-connection array of the P-type semiconductor and N-type semiconductor.

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